



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/779,819

02/18/2004

Hyung-kyoon Kim

1293.1937

6807

21171 7590 05/15/2007  
STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

BIBBINS, LATANYA

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

05/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/779,819

**Applicant(s)**

KIM, HYUNG-KYOON

**Examiner**

LaTanya Bibbins

**Art Unit**

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. In the remarks filed on March 6, 2007, submitted arguments for allowability of pending claims 1-13.

### *Response to Arguments*

2. In the arguments, filed March 6, 2007, with respect to the rejections of claims 1-12 under 35 U.S.C. 103(a), Applicant argued that the Office failed to make out a prima facie case of obviousness and that an attempt to do so appears to be incomplete. Applicant's arguments, with respect to the rejections of claims 1-12 have been fully considered and are persuasive.

However, since the art of record reasonable meets and/or suggests the claim limitations, the previous grounds of rejections are maintained while correcting the deficiencies of the 35 U.S.C. 103(a) rejections in the previous Office Action.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 3-7, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green et al. (US Patent Number 7,114,028 B1) in view of Shishido (US Patent Number 6,876,615 B2).**

**Regarding claim 1**, Green discloses a method of recording data on an optical disc in an Incremental Recording mode in which data is partially recordable, the method comprising: determining whether the optical disc is formatted and recording data on the optical disc upon determining that the optical disc is not formatted (column 5 lines 25-33) and checking a state of the optical disc in a recording management area in which disc information is recorded (column 6 lines 1-4 and 42-44); Green does not disclose, but Shishido does disclose erasing, after the checking of the state, data ranging from a next writable address to a predetermined block upon determining that the optical disc is a Minimal Blank disc in which data is erased from the recording management area to a lead-in area (column 2 lines 16-28 and 49-52 and Figure 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the teachings of Green and have data ranging from a next writable address to a predetermined block upon determining that the optical disc is a Minimal Blank disc in which data is erased from the recording management area to a lead-in area, as taught by Shishido. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to erase only the contents information of the track.

**Regarding claim 3**, Green does not explicitly disclose, but Shishido does disclose recording, after the checking of the state, data from a next address upon determining that the optical disc is a Minimal Blank disc in which data is erased from the recording management area to a lead-out area (column 2 lines 15-28 and 53-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the teachings of Green and have recording, after the checking of the state, data from a next address upon determining that the optical disc is a Minimal Blank disc in which data is erased from the recording management area to a lead-out area, as disclosed by Shishido. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to record data in a manner compatible with the minimally blank disk state.

**Claim 4** is drawn to a computer readable medium corresponding to the method of using same as claimed in claims 1. Therefore computer readable medium claim 4 corresponds to method claim 1, and is rejected for the same reasons of obviousness as used above.

**Regarding claim 5**, Green discloses a method of recording data on an optical disc in an Incremental Recording mode, the method comprising: determining whether the optical disc is formatted (column 5 lines 25-33) and partially recording data to the optical disc at a desired position upon determining that the optical disc is not formatted (column 5 lines 25-33). Green does not disclose, but Shishido does disclose checking whether the optical disc is Fully Blanked or Minimally Blanked after the partial recording step (column 8 lines 6-29 and Figure 8); erasing, after the checking, data from a portion of the optical disc that may lead to a recording or read out error upon determining that the optical disc is Minimally Blanked (column 2 lines 16-28 and 49-52 and Figure 8);

Art Unit: 2627

and recording the remaining data at the desired address on the optical disc after the erasing step (column 2 lines 15-28 and 53-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Green and Shishido. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to determine how to proceed with the writing of data on the disc and to record data in a manner compatible with the Minimally Blanked disk state.

**Regarding claim 6**, Green does not explicitly disclose, but Shishido does disclose the checking comprises checking a recording management area to determine whether the disc is Fully Blanked or Minimally Blanked (column 8 lines 6-29).

**Regarding claim 7**, Green does not disclose, but Shishido does disclose data ranging from a next writable address to a predetermined block is erased in said erasing (column 2 lines 16-28 and 49-52 and Figure 8).

**Regarding claim 9**, Green does not explicitly disclose, but Shishido does disclose a step of recording, after the checking step, data from a next address upon determining that the optical disc is Minimally Blanked (column 2 lines 15-28 and 53-63).

**Regarding claim 10**, Green discloses an apparatus for recording data on a Minimally Blanked optical disc in an Incremental Recording mode, the apparatus comprising: a data eraser/recorder that, in response to a signal, records first data to a desired portion of the optical disc or erases data from a portion of the optical disc that may lead to a recording or read out error (column 5 lines 25-33); and a controller that

Art Unit: 2627

determines whether the optical disc is formatted or unformatted (column 5 lines 25-33), outputs a signal to the data eraser/recorder to partially record the first data to the optical disc upon determining that the optical disc is not formatted (column 5 lines 25-33).

Green does not disclose but Shishido does disclose determining whether the optical disc is fully blanked or minimally blanked (column 8 lines 6-29 and Figure 8), wherein, after the data eraser/recorder partially records data to the optical disc, the controller outputs a signal to the data eraser/recorder to erase second data from a portion of the optical disc that may lead to a recording or read out error upon determining that the disc is minimally blanked (column 2 lines 16-28 and 49-52 and Figure 8), and outputs a signal to the data eraser/recorder to record a remaining portion of the first data if upon determining that the disc is fully blanked or if after the second data is erased (column 2 lines 15-28 and 53-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Green and Shishido. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to determine how to proceed with the writing of data on the disc and to record data in a manner compatible with the Minimally Blanked disk state.

**Regarding claim 11,** Green does not disclose, but Shishido does disclose the desired portion of the disc is designated by a write start address and the portion of the optical disc from which second data is erased is the next writable address to a predetermined block (column 9 lines 1-8 and 37-39).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the teachings of Green and have the desired portion of the disc is designated by a write start address and the portion of the optical disc from which second data is erased is the next writable address to a predetermined block, as disclosed by Shishido. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to accurately detect a new data recordable position.

**5. Claims 2, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green et al. (US Patent Number 7,114,028 B1) and Shishido (US Patent Number 6,876,615 B2), as applied to claims 1, 5, and 10 above, and further in view of Lee (US Patent Number 7,106,665 B2).**

Regarding claims 2 and 8, the combined teachings of Green and Shishido do not explicitly disclose, but Lee does disclose the determining further comprises outputting a recording error message upon determining that the optical disc is formatted (column 4 lines 37-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the teachings of Green and Shishido and output a recording error message upon determining that the optical disc is formatted, as disclosed by Lee. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to notify the user of the error.



**Regarding claim 12**, the combined teachings of Green and Shishido do not explicitly disclose, but Lee does disclose the controller checks a value designated at a Field 0 of a recording management area of the optical disc to determine whether the optical disc is formatted or unformatted (column 4 lines 37-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the teachings of Green and Shishido and check a value designated at a Field 0 of a recording management area of the optical disc to determine whether the optical disc is formatted or unformatted, as disclosed by Lee. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to notify the user of the error.

***Allowable Subject Matter***

6. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Regarding claim 13**, none of the references of record, alone or in combination, suggest or fairly teach the apparatus of claim 10, **wherein the second data is one error correction code block from a next writable address** in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

***Citation of Relevant Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Summers et al. (US 7,120,735)** disclose automatic formatting of removable media.

**Shishido (US 7,085,214)** discloses a data recording apparatus including pseudo-erasing features.

**Shishido (US 7,082,089)** discloses a data recording apparatus wherein new data is recorded where the data has been pseudo-erased.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571) 270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

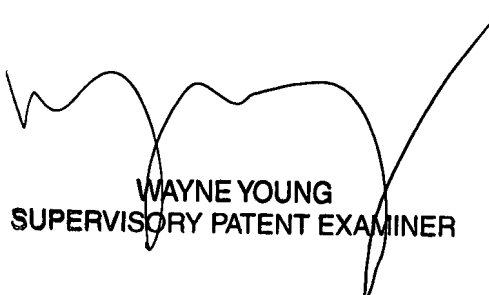
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LaTanya Bibbins



WAYNE YOUNG  
SUPERVISORY PATENT EXAMINER